GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: December 27, 2001, 16:55:45 ; Search time 427.16 Seconds
(without alignments)
5579.558 Million cell updates/sec

Title: US-09-830-647-3
Perfect score: 2780
Sequence: 1 aattcggcacgagctctctg.....aaaaaaaaaaaaaactcgag 2780

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 930621 seqs, 428662619 residues

Total number of hits satisfying chosen parameters: 1861242

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_1101:*
1: /SIDS2/gcgdata/geneseq/geneseqn/NA1980.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	2780	100.0	2780	21	AAA53483	Human H37 nucleoti
	2	2768	99.6	6712	21	AAC76691	Human ORFX ORF2246
	3	2648	95.3	2719	21	AAA53484	Human H37 nucleoti
c	4	1194.2	43.0	1915	22	AAI13747	Probe #3680 for ge
c	5	1194.2	43.0	1915	22	AAI03627	Probe #3618 used t
	6	1101.6	39.6	2276	22	AAH17747	Human cDNA sequenc
c	7	965	34.7	1031	22	AAI22968	Probe #12901 for g
c	8	965	34.7	1031	22	AAI08634	Probe #8625 used t
	9	721.6	26.0	903	22	AAH06140	Human cDNA clone (
	10	513.8	18.5	685	22	AAF64883	Novel human polynu
	11	411	14.8	422	22	AAF66758	Novel human polynu
	12	384.4	13.8	403	22	AAF64912	Novel human polynu
	13	294.6	10.6	318	21	AAA43876	Human secreted exp
	14	211.4	7.6	397	22	AAF64832	Novel human polynu
	15	184.2	6.6	468	22	AAI16129	Probe #6062 for ge
	16	184.2	6.6	468	22	AAI38399	Probe #7085 used t
	17	183.2	6.6	201	22	AAI25319	Probe #15252 for g
	18	183.2	6.6	201	22	AAI51493	Probe #20179 used
c	19	182.2	6.6	416	22	AAI37857	Probe #6543 used t
	20	178.2	6.4	449	22	AAI15475	Probe #5408 for ge
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c	22	176.8	6.4	936	22	AAF58252	Oligonucleotide D1
c	23	176.8	6.4	936	22	AAF58254	Oligonucleotide D1
c	24	176.8	6.4	936	22	AAF58257	Oligonucleotide D1
c	25	176.8	6.4	936	22	AAF58259	Oligonucleotide D2
c	26	176.8	6.4	936	22	AAF58262	Oligonucleotide D2
c	27	176.8	6.4	938	22	AAF58255	Oligonucleotide D1
	28	176.2	6.3	936	22	AAF58252	Oligonucleotide D1
	29	176.2	6.3	936	22	AAF58254	Oligonucleotide D1
	30	176.2	6.3	936	22	AAF58257	Oligonucleotide D1
	31	176.2	6.3	936	22	AAF58259	Oligonucleotide D2
	32	176.2	6.3	936	22	AAF58262	Oligonucleotide D2
	33	176.2	6.3	938	22	AAF58255	Oligonucleotide D1
	34	175.8	6.3	180	16	AAT25803	Human gene signatu
c	35	165	5.9	165	22	AAI57140	Probe #25826 used
	36	149	5.4	149	22	AAI24703	Probe #14636 for g
	37	149	5.4	149	22	AAI50060	Probe #18746 used
c	38	124	4.5	195	21	AAC04338	Human secreted pro
	39	99.4	3.6	377	22	AAF65378	Novel human polynu
c	40	72	2.6	244	22	AAF58238	Oligonucleotide D1
	41	70.4	2.5	244	22	AAF58238	Oligonucleotide D1
c	42	54.8	2.0	12001	16	AAQ76213	HSV L/ST region.
c	43	53	1.9	114793	22	AAD08215	Human genome from
c	44	52.4	1.9	3198	20	AAX02974	Human IL-1ra BAC c
c	45	52	1.9	2188	20	AAZ77506	Human ovarian tumo

ALIGNMENTS

RESULT 1
AAA53483
ID AAA53483 standard; cDNA; 2780 BP.
XX
AC AAA53483;
XX
DT 04-OCT-2000 (first entry)
XX
DE Human H37 nucleotide sequence #1.
XX
KW H37; human; Cdc7 regulatory subunit; cytostatic; proliferative; cancer;
KW anti-proliferative; replication regulator; stem cell; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 518..2542
FT /*tag= a
FT /product= "H37"
XX
PN WO200026250-A1.
XX
PD 11-MAY-2000.
XX
PF 01-NOV-1999; 99WO-JP06076.
XX
PR 30-OCT-1998; 98JP-0311408.
XX
PA (NISC-) JAPAN SCI & TECHNOLOGY CORP.
PA (ARAI/) ARAI K.
PA (MASA/) MASAI H.
XX
PI Arai K, Masai H;
XX

DR WPI; 2000-365580/31.
DR P-PSDB; AAB03758.
XX
PT Human H37 proteins with a Cdc7 activity regulatory subunit, for
PT controlling cell replication and cell proliferation, useful in treating
PT cancers and diseases due to abnormal production of stem cells -
XX
PS Claim 6; Page 47-49; 55pp; Japanese.
XX
CC The present sequence represents a human H37 encoding nucleotide sequence.
CC H37 is a protein with a Cdc7 activity regulatory subunit. The invention
CC relates to two H37 protein and nucleotide sequences. H37 proteins exhibit
CC cytostatic, proliferative, anti-proliferative, and cell replication
CC regulatory activities. The proteins, encoded genes and DNA fragments are
CC useful in treating cancers and other diseases resulting from abnormal
CC production of stem cells. Antibodies directed against one of the H37
CC proteins can be used to inhibit cell proliferation.
XX
SQ Sequence 2780 BP; 949 A; 534 C; 613 G; 684 T; 0 other;

Query Match 100.0%; Score 2780; DB 21; Length 2780;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2780; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      61 gtctgagactgagagagcaacggaatggaggcggggtagaggcggaaacacaacctgcag 120

Qy     121 ggccagagcgaggcgcgagaaggacggcggcgtgaggggcggggcgcgcagcgcgagaa 180
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Qy     181 ggcaggcacgaggggcgagcgcgaggcggggcacggcgcgtggcgtgagacggggcgggg 240
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Qy     241 cgcgcgtatcggcgccgcggccgcgtgacgcgttttcaaatcttcaaccgccgcagccca 300
Db     241 cgcgcgtatcggcgccgcggccgcgtgacgcgttttcaaatcttcaaccgccgcagccca 300

Qy     301 ctcgtttgtgctttgcgccttcctcctccgcgccttggagccggatccggccccggaaac 360
Db     301 ctcgtttgtgctttgcgccttcctcctccgcgccttggagccggatccggccccggaaac 360

Qy     361 ccgacctgcagacgcggtacctctactgcgtagaggccgtagctggcggaaggagagagg 420
Db     361 ccgacctgcagacgcggtacctctactgcgtagaggccgtagctggcggaaggagagagg 420

Qy     421 cggccgtcctgtcaacaggccgggggaagccgtgctttcgcggctgcccggtgcgacact 480
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Qy     481 ttctccggacccagcatgtaggtgccgggcgactgccatgaactccggagccatgaggat 540
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Qy    1381 agagaagaagaaaaaaggatattgtgaatgttgcttgcagaaatatgaagatctagaaac 1440
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Qy    1621 gactgaacaaaaggaaaaagtggaattgcaacatatttctcagaaagattgccaggaaga 1680
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Qy    1981 atctgtacatgtttctgatttcagtacagataatagtggatctcaaccaaaaacagaagtc 2040
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Qy    2041 agatactgtgctttttccagcaaaggatctcaaggaaaaggaccttcattcaatatttac 2100
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Qy    2641 gtttacagacccaaatgtaaatattaaaaataaatatttgcaatttttctacagaattgaa 2700
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Qy    2701 tacctgttaaagaaaaattacagaataaacttgtgactggtcttgttttacattaaaaaa 2760
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy    2761 aaaaaaaaaaaaaactcgag 2780
           ||||||||||||||||||||
Db    2761 aaaaaaaaaaaaaactcgag 2780


RESULT   2
AAC76691
ID   AAC76691 standard; cDNA; 6712 BP.
XX
AC   AAC76691;
XX
DT   08-FEB-2001  (first entry)
XX
DE   Human ORFX ORF2246 polynucleotide sequence SEQ ID NO:4491.
XX
KW   Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW   vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW   anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW   immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW   hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW   antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW   antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
KW   neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW   cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW   cholesterol ester storage; systemic lupus erythematosus; infection;
KW   severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW   allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW   bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW   thrombosis; contraceptive; ss.
XX
OS   Homo sapiens.
XX
PN   WO200058473-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08621.
XX
PR   31-MAR-1999;   99US-0127607.
PR   02-APR-1999;   99US-0127636.
PR   05-APR-1999;   99US-0127728.
PR   30-MAR-2000; 2000US-0540763.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Shimkets RA,  Leach M;
XX
DR   WPI; 2000-602362/57.
DR   P-PSDB; AAB42482.
XX
PT   Novel nucleic acids and peptides derived from open reading frame X,
PT   useful for treating e.g. cancers, proliferative disorders,
PT   neurodegenerative disorders and cardiovascular disease -
XX
PS   Claim 5; Page 3671-3675; 5507pp; English.
XX
CC   AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC   which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC   sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC   antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC   osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC   immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC   antidiabetic; hypotensive; dermatological; immunosuppressive;
CC   antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC   antithyroid; and antianaemic. The sequences can be used for determining
CC   the presence of or predisposition to, or preventing or treating
CC   pathological conditions associated with an ORFX-associated disorder. The
CC   nucleic acids can be used to express ORFX proteins in gene therapy
CC   vectors. The proteins and nucleic acids may be used to treat cancers,
CC   proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC   graft vs host disease, cardiovascular disease, diabetes mellitus,
CC   hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC   erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC   bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC   allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC   nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC   coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ   Sequence 6712 BP; 2319 A; 1206 C; 1244 G; 1942 T; 1 other;


  Query Match             99.6%;  Score 2768;  DB 21;  Length 6712;
  Best Local Similarity   99.8%;  Pred. No. 0;
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Matches 2771; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

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Qy      65 gagactgagagagcaacggaatggaggcggggtagaggcggaaacacaacctgcagggcc 124
Db    3997 gagactgagagagcaacggaatggaggcggggtagaggcggaaacacaacctgcagggcc 4056

Qy     125 agagcgaggcgcgagaaggacggcggcgtgaggggggcgggcgcgcagcgcgagaaggca 184
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Qy     185 ggcacgaggggcgagcgcgaggcggggcacggcgcgtggcgtgagacggggcggggcgcg 244
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RESULT 3
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ID AAA53484 standard; cDNA; 2719 BP.
XX
AC AAA53484;
XX
DT 04-OCT-2000 (first entry)
XX
DE Human H37 nucleotide sequence #2.
XX
KW H37; human; Cdc7 regulatory subunit; cytostatic; proliferative; cancer;
KW anti-proliferative; replication regulator; stem cell; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 518..1222
FT /*tag= a
FT /product= "H37"
XX
PN WO200026250-A1.
XX
PD 11-MAY-2000.
XX
PF 01-NOV-1999; 99WO-JP06076.
XX
PR 30-OCT-1998; 98JP-0311408.
XX
PA (NISC-) JAPAN SCI & TECHNOLOGY CORP.
PA (ARAI/) ARAI K.
PA (MASA/) MASAI H.
XX
PI Arai K, Masai H;
XX
DR WPI; 2000-365580/31.
DR P-PSDB; AAB03759.
XX
PT Human H37 proteins with a Cdc7 activity regulatory subunit, for
PT controlling cell replication and cell proliferation, useful in treating
PT cancers and diseases due to abnormal production of stem cells -
XX
PS Claim 7; Page 49-51; 55pp; Japanese.
XX
CC The present sequence represents a human H37 encoding nucleotide sequence.
CC H37 is a protein with a Cdc7 activity regulatory subunit. The invention
CC relates to two H37 protein and nucleotide sequences. H37 proteins exhibit
CC cytostatic, proliferative, anti-proliferative, and cell replication
CC regulatory activities. The proteins, encoded genes and DNA fragments are
CC useful in treating cancers and other diseases resulting from abnormal
CC production of stem cells. Antibodies directed against one of the H37
CC proteins can be used to inhibit cell proliferation.
XX
SQ Sequence 2719 BP; 932 A; 522 C; 607 G; 658 T; 0 other;

Query Match 95.3%; Score 2648; DB 21; Length 2719;
Best Local Similarity 97.8%; Pred. No. 0;
Matches 2719; Conservative 0; Mismatches 0; Indels 61; Gaps 1;

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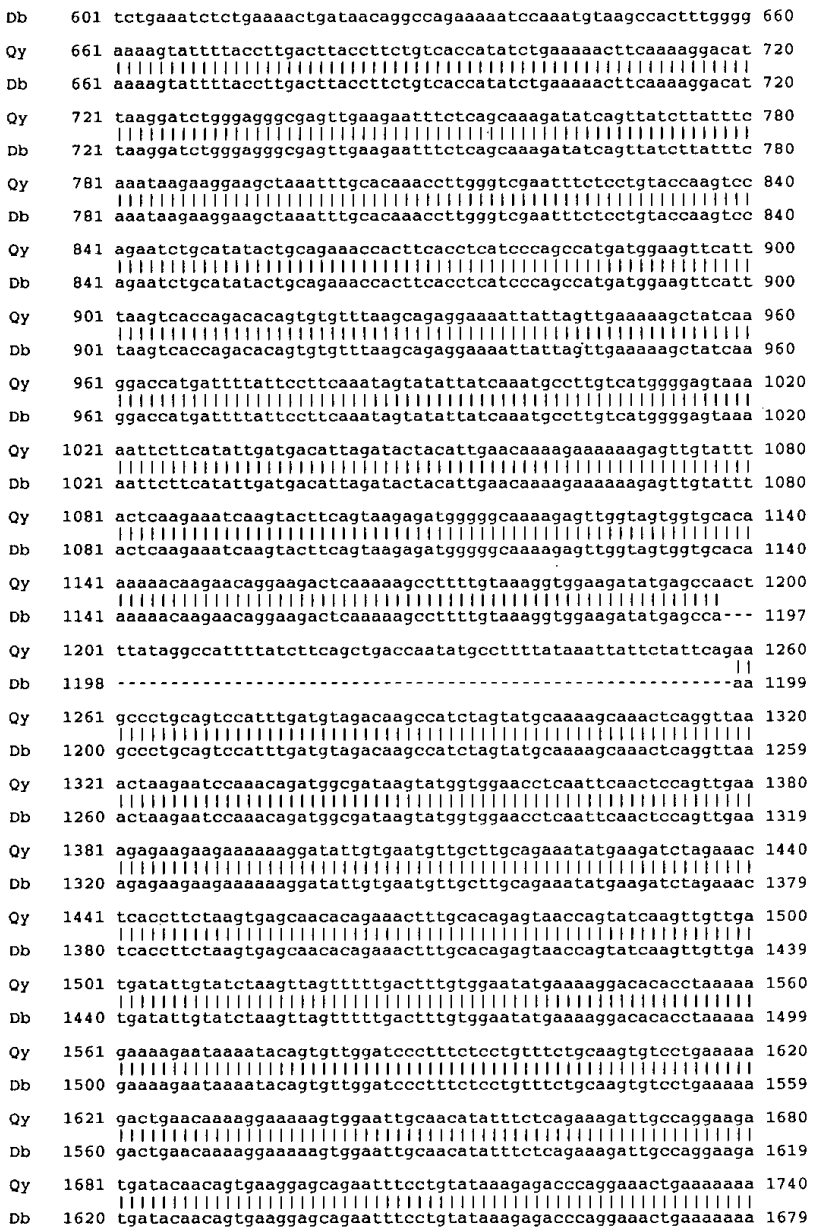
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DT   12-OCT-2001  (first entry)
XX
DE   Probe #3680 for gene expression analysis in human cervical cell sample.
XX
KW   Probe; human; microarray; gene expression; cervical epithelial cell;
KW   cervical cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157278-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00670.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488901/53.
XX
PT   Human genome-derived single exon nucleic acid probes useful for
PT   analyzing gene expression in human cervical epithelial cells -
XX
PS   Claim 25; SEQ ID No 3680; 487pp; English.
XX
CC   The present invention relates to human single exon nucleic acid probes
CC   (SENP). The present sequence is one such probe. The SENPs are derived
CC   from human HeLa cells. The SENPs can be used to produce a single exon
CC   microarray, which can be used for measuring human gene expression in a
CC   sample derived from human cervical epithelial cells. By measuring gene
CC   expression, the probes are therefore useful in grading and/or staging
CC   of diseases of the cervix, notably cervical cancer.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 1915 BP; 608 A; 324 C; 280 G; 703 T; 0 other;


  Query Match             43.0%;  Score 1194.2;  DB 22;  Length 1915;
  Best Local Similarity   99.7%;  Pred. No. 5.2e-258;
  Matches 1196;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy   1563 aaagaataaaatacagtgttggatccctttctcctgtttctgcaagtgtcctgaaaaaga 1622
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1283 AAAGAATAAAATACAGTGTTGGATCCCTTTCTCCTGTTTCTGCAAGTGTCCTGAAAAAGA 1224

Qy   1623 ctgaacaaaaggaaaaagtggaattgcaacatatttctcagaaagattgccaggaagatg 1682
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1223 CTGAACAAAAGGAAAAAGTGGAATTGCAACATATTTCTCAGAAAGATTGCCAGGAAGATG 1164

Qy   1683 atacaacagtgaaggagcagaatttcctgtataaagagacccaggaaactgaaaaaaagc 1742
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1163 ATACAACAGTGAAGGAGCAGAATTTCCTGTATAAAGAGACCCAGGAAACTGAAAAAAAGC 1104

Qy   1743 tcctgtttatttcagagcccatccccccaccttcaaatgaattgagagggcttaatgaga 1802
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db   1103 TCCTGTTTATTTCAGAGCCCATCCCCCACCCTTCAAATGAATTGAGAGGGCTTAATGAGA 1044

Qy   1803 aaatgagtaataaatgttccatgttaagtacagctgaagatgacataagacagaatttta 1862
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1043 AAATGAGTAATAAATGTTCCATGTTAAGTACAGCTGAAGATGACATAAGACAGAATTTTA 984

Qy   1863 cacagctacctctacataaaaacaaacaggaatgcattcttgacatttccgaacacacat 1922
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    983 CACAGCTACCTCTACATAAAAACAAACAGGAATGCATTCTTGACATTTCCGAACACACAT 924

Qy   1923 taagtgaaaatgacttagaagaactaagggtagatcactataaatgtaacatacaggcat 1982
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    923 TAAGTGAAAATGACTTAGAAGAACTAAGGGTAGATCACTATAAATGTAACATACAGGCAT 864

Qy   1983 ctgtacatgtttctgatttcagtacagataatagtggatctcaaccaaaaacagaagtcag 2042
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    863 CTGTACATGTTTCTGATTTCAGTACAGATAATAGTGGATCTCAACCAAAACAGAAGTCAG 804

Qy   2043 atactgtgctttttccagcaaaggatctcaaggaaaaggaccttcattcaatatttactc 2102
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Db    803 ATACTGTGCTTTTTCCAGCAAAGGATCTCAAGGAAAAGGACCTTCATTCAATATTTACTC 744

Qy   2103 atgattctggtctgataacaataaacagttcacaagagcacctaactgttcaggcaaagg 2162
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    743 ATGATTCTGGTCTGATAACAATAAACAGTTCACAAGAGCACCTAACTGTTCAGGCAAAGG 684

Qy   2163 ctccattccatactcctcctgaggaacccaatgaatgtgacttcaagaatatggatagtt 2222
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    683 CTCCATTCCATACTCCTCCTGAGGAACCCAATGAATGTGACTTCAAGAATATGGATAGTT 624

Qy   2223 taccttctggtaaaatacatcgaaaagtgaaaataatattaggacgaaatagaaaagaaa 2282
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Db    623 TACCTTCTGGTAAAATACATCGAAAAGTGAAAATAATATTAGGACGAAATAGAAAAGAAA 564

Qy   2283 atctggaaccaaatgctgaatttgataaaagaactgaatttattacacaagaagaaaaca 2342
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    563 ATCTGGAACCAAATGCTGAATTTGATAAAAGAACTGAATTTATTACACAAGAAGAAAACA 504

Qy   2343 gaatttgtagttcaccggtacagtctttactagacttgtttcagactagtgaagagaaat 2402
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Db    503 GAATTTGTAGTTCACCGGTACAGTCTTTACTAGACTTGTTTCAGACTAGTGAAGAGAAAT 444

Qy   2403 cagaatttttgggtttcacaagctacacagaaaagagtggtatatgcaatgttttagata 2462
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    443 CAGAATTTTTGGGTTTCACAAGCTACACAGAAAAGAGTGGTATATGCAATGTTTTAGATA 384

Qy   2463 tttgggaagaggaaaattcagataatctgttaacagcgtttttctcgtccccttcaactt 2522
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    383 TTTGGGAAGAGGAAAATTCAGATAATCTGTTAACAGCGTTTTTCTCGTCCCCTTCAACTT 324

Qy   2523 ctacatttactggctttttagaatttaaaaaaatgcatacttttcagaagtgataaggatca 2582
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    323 CTACATTTACTGGCTTTTAGAATTTAAAAAATGCATACTTTTCAGAAGTGATAAGGATCA 264

Qy   2583 tattcttgaaatttttataaatatgtatggaaattcttaggatttttttaccagctttgt 2642
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    263 TATTCTTGAAATTTTTATAAATATGTATGGAAATTCTTAGGATTTTTTTACCAGCTTTGT 204

Qy   2643 ttacagacccaaatgtaaatattaaaaataaatatttgcaattttctacagaattgaata 2702
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    203 TTACAGACCCAAATGTAAATATTAAAAATAAATATTTGCAATTTTCTACAGAATTGAATA 144

Qy   2703 cctgttaaagaaaaattacagaataaacttgtgactggtcttgttttacattaaaaaaa 2761
           ||||||||||||||||||||||||||||||||||||||||||||||||||||| | | |
Db    143 CCTGTTAAAGAAAAATTACAGAATAAACTTGTGACTGGTCTTGTTTTACATTATATATA 85


RESULT   5
AAI03627/c
ID   AAI03627 standard; DNA; 1915 BP.
XX
AC   AAI03627;
XX
```

```
DT   09-OCT-2001  (first entry)
XX
DE   Probe #3618 used to measure gene expression in human breast sample.
XX
KW   Probe; human; breast disease; breast cancer; development disorder; ss;
KW   inflammatory disease; proliferative breast disease; non-carcinoma tumour.
XX
OS   Homo sapiens.
XX
PN   WO200157270-A2.
XX
PD   09-AUG-2001.
XX
PF   29-JAN-2001; 2001WO-US00661.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-476286/51.
XX
PT   Novel single exon nucleic acid probe used to measuring gene expression
PT   in a human breast -
XX
PS   Claim 25; SEQ ID No 3618; 322pp; English.
XX
CC   The present invention relates to novel single exon nucleic acid probes.
CC   The present sequence is one such probe. The probes are useful for
CC   measuring human gene expression in a human breast sample, where the probe
CC   hybridises at high stringency to a nucleic acid expressed in the human
CC   breast. The probes are useful for predicting, diagnosing, grading,
CC   staging, monitoring and prognosing diseases of the human breast,
CC   particularly those diseases with polygenic aetiology. The diseases
CC   include: breast cancer, disorders of development, inflammatory diseases
CC   of the breast, fibrocystic changes, proliferative breast disease and
CC   non-carcinoma tumours.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 1915 BP; 608 A; 324 C; 280 G; 703 T; 0 other;

  Query Match             43.0%;  Score 1194.2;  DB 22;  Length 1915;
  Best Local Similarity   99.7%;  Pred. No. 5.2e-258;
  Matches 1196;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy   1563 aaagaataaaatacagtgttggatccctttctcctgtttctgcaagtgtcctgaaaaaga 1622
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1283 AAAGAATAAAATACAGTGTTGGATCCCTTTCTCCTGTTTCTGCAAGTGTCCTGAAAAAGA 1224

Qy   1623 ctgaacaaaaggaaaaagtggaattgcaacatatttctcagaaagattgccaggaagatg 1682
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy   1683 atacaacagtgaaggagcagaatttcctgtataaagagacccaggaaactgaaaaaaagc 1742
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1163 ATACAACAGTGAAGGAGCAGAATTTCCTGTATAAAGAGACCCAGGAAACTGAAAAAAAGC 1104

Qy   1743 tcctgtttatttcagagcccatcccccacccttcaaatgaattgagagggcttaatgaga 1802
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1103 TCCTGTTTATTTCAGAGCCCATCCCCCACCCTTCAAATGAATTGAGAGGGCTTAATGAGA 1044

Qy   1803 aaatgagtaataaatgttccatgttaagtacagctgaagatgacataagacagaatttta 1862
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db   1043 AAATGAGTAATAAATGTTCCATGTTAAGTACAGCTGAAGATGACATAAGACAGAATTTTA 984

Qy   1863 cacagctacctctacataaaaacaaacaggaatgcattcttgacatttccgaacacacat 1922
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    983 CACAGCTACCTCTACATAAAAACAAACAGGAATGCATTCTTGACATTTCCGAACACACAT 924

Qy   1923 taagtgaaaatgacttagaagaactaagggtagatcactataaatgtaacatacaggcat 1982
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    923 TAAGTGAAAATGACTTAGAAGAACTAAGGGTAGATCACTATAAATGTAACATACAGGCAT 864

Qy   1983 ctgtacatgtttctgatttcagtacagataatagtggatctcaaccaaaacagaagtcag 2042
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    863 CTGTACATGTTTCTGATTTCAGTACAGATAATAGTGGATCTCAACCAAAACAGAAGTCAG 804

Qy   2043 atactgtgctttttccagcaaaggatctcaaggaaaaggaccttcattcaatatttactc 2102
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    803 ATACTGTGCTTTTTCCAGCAAAGGATCTCAAGGAAAAGGACCTTCATTCAATATTTACTC 744

Qy   2103 atgattctggtctgataacaataaacagttcacaagagcacctaactgttcaggcaaagg 2162
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    743 ATGATTCTGGTCTGATAACAATAAACAGTTCACAAGAGCACCTAACTGTTCAGGCAAAGG 684

Qy   2163 ctccattccatactcctcctgaggaacccaatgaatgtgacttcaagaatatggatagtt 2222
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    683 CTCCATTCCATACTCCTCCTGAGGAACCCAATGAATGTGACTTCAAGAATATGGATAGTT 624

Qy   2223 taccttctggtaaaatacatcgaaaagtgaaaataatattaggacgaaatagaaaagaaa 2282
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    623 TACCTTCTGGTAAAATACATCGAAAAGTGAAAATAATATTAGGACGAAATAGAAAAGAAA 564

Qy   2283 atctggaaccaaatgctgaatttgataaaagaactgaatttattacacaagaagaaaaca 2342
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Db    563 ATCTGGAACCAAATGCTGAATTTGATAAAAGAACTGAATTTATTACACAAGAAGAAAACA 504

Qy   2343 gaatttgtagttcaccggtacagtctttactagacttgtttcagactagtgaagagaaat 2402
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    503 GAATTTGTAGTTCACCGGTACAGTCTTTACTAGACTTGTTTCAGACTAGTGAAGAGAAAT 444

Qy   2403 cagaatttttgggtttcacaagctacacagaaaagagtggtatatgcaatgttttagata 2462
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    443 CAGAATTTTTGGGTTTCACAAGCTACACAGAAAAGAGTGGTATATGCAATGTTTTAGATA 384

Qy   2463 tttgggaagaggaaaattcagataatctgttaacagcgtttttctcgtccccttcaactt 2522
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    383 TTTGGGAAGAGGAAAATTCAGATAATCTGTTAACAGCGTTTTTCTCGTCCCCTTCAACTT 324

Qy   2523 ctacatttactggcttttagaatttaaaaaatgcatacttttcagaagtgataaggatca 2582
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    323 CTACATTTACTGGCTTTTAGAATTTAAAAAATGCATACTTTTCAGAAGTGATAAGGATCA 264

Qy   2583 tattcttgaaatttttataaatatgtatggaaattcttaggatttttttaccagctttgt 2642
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    263 TATTCTTGAAATTTTTATAAATATGTATGGAAATTCTTAGGATTTTTTTACCAGCTTTGT 204

Qy   2643 ttacagacccaaatgtaaatattaaaaataaatatttgcaattttctacagaattgaata 2702
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    203 TTACAGACCCAAATGTAAATATTAAAAATAAATATTTGCAATTTTCTACAGAATTGAATA 144

Qy   2703 cctgttaaagaaaaattacagaataaacttgtgactggtcttgttttacattaaaaaaa 2761
          ||||||||||||||||||||||||||||||||||||||||||||||||||||| | | |
Db    143 CCTGTTAAAGAAAAATTACAGAATAAACTTGTGACTGGTCTTGTTTTACATTATATATA 85

RESULT   6
AAH17747
ID   AAH17747 standard; cDNA; 2276 BP.
XX
AC   AAH17747;
XX
DT   26-JUN-2001  (first entry)
XX
DE   Human cDNA sequence SEQ ID NO:17368.
XX
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```
KW   Human; primer; detection; diagnosis; antisense therapy; gene therapy; ss.
XX
OS   Homo sapiens.
XX
PN   EP1074617-A2.
XX
PD   07-FEB-2001.
XX
PF   28-JUL-2000; 2000EP-0116126.
XX
PR   29-JUL-1999;   99JP-0248036.
PR   27-AUG-1999;   99JP-0300253.
PR   11-JAN-2000; 2000JP-0118776.
PR   02-MAY-2000; 2000JP-0183767.
PR   09-JUN-2000; 2000JP-0241899.
XX
PA   (HELI-) HELIX RES INST.
XX
PI   Ota T, Isogai T, Nishikawa T, Hayashi K, Saito K, Yamamoto J;
PI   Ishii S, Sugiyama T, Wakamatsu A, Nagai K, Otsuki T;
XX
DR   WPI; 2001-318749/34.
XX
PT   Primer sets for synthesizing polynucleotides, particularly the 5602
PT   full-length cDNAs defined in the specification, and for the detection
PT   and/or diagnosis of the abnormality of the proteins encoded by the
PT   full-length cDNAs -
XX
PS   Claim 8; SEQ ID 17368; 2537pp + CD ROM; English.
XX
CC   The present invention describes primer sets for synthesising 5602
CC   full-length cDNAs defined in the specification. Where a primer set
CC   comprises: (a) an oligo-dT primer and an oligonucleotide complementary
CC   to the complementary strand of a polynucleotide which comprises one of
CC   the 5602 nucleotide sequences defined in the specification, where the
CC   oligonucleotide comprises at least 15 nucleotides; or (b) a combination
CC   of an oligonucleotide comprising a sequence complementary to the
CC   complementary strand of a polynucleotide which comprises a 5'-end
CC   sequence and an oligonucleotide comprising a sequence complementary to a
CC   polynucleotide which comprises a 3'-end sequence, where the
CC   oligonucleotide comprises at least 15 nucleotides and the combination of
CC   the 5'-end sequence/3'-end sequence is selected from those defined in
CC   the specification. The primer sets can be used in antisense therapy and
CC   in gene therapy. The primers are useful for synthesising polynucleotides,
CC   particularly full-length cDNAs. The primers are also useful for the
CC   detection and/or diagnosis of the abnormality of the proteins encoded by
CC   the full-length cDNAs. The primers allow obtaining of the full-length
CC   cDNAs easily without any specialised methods. AAH03166 to AAH13628 and
CC   AAH13633 to AAH18742 represent human cDNA sequences; AAB92446 to
CC   AAB95893 represent human amino acid sequences; and AAH13629 to AAH13632
CC   represent oligonucleotides, all of which are used in the exemplification
CC   of the present invention.
XX
SQ   Sequence 2276 BP; 793 A; 381 C; 421 G; 681 T; 0 other;


  Query Match            39.6%;  Score 1101.6;  DB 22;  Length 2276;
  Best Local Similarity  99.6%;  Pred. No. 3.2e-237;
  Matches 1104;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy   1654 tatttctcagaaagattgccaggaagatgatacaacagtgaaggagcagaatttcctgta 1713
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Db      1 tatttctcagaaagattgccaggaagatgatacaacagtgaaggagcagaatttcctgta 60

Qy   1714 taaagagacccaggaaactgaaaaaaagctcctgtttatttcagagcccatcccccaccc 1773
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 taaagagacccaggaaactgaaaaaaagctcctgtttatttcagagcccatcccccaccc 120

Qy   1774 ttcaaatgaattgagagggcttaatgagaaaatgagtaataaatgttccatgttaagtac 1833
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Db    121 ttcaaatgaattgagagggcttaatgagaaaatgagtaataaatgttccatgttaagtac 180

Qy   1834 agctgaagatgacataagacagaattttacacagctacctctacataaaaacaaacagga 1893
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Db    181 agctgaagatgacataagacagaattttacacagctacctctacataaaaacaaacagga 240

Qy   1894 atgcattcttgacatttccgaacacacattaagtgaaaatgacttagaagaactaagggt 1953
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 atgcattcttgacatttccgaacacacattaagtgaaaatgacttagaagaactaagggt 300

Qy   1954 agatcactataaatgtaacatacaggcatctgtacatgtttctgatttcagtacagataa 2013
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 agatcactataaatgtaacatacaggcatctgtacatgtttctgatttcagtacagataa 360

Qy   2014 tagtggatctcaaccaaaacagaagtcagatactgtgctttttccagcaaaggatctcaa 2073
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 tagtggatctcaaccaaaacagaagtcagatactgtgctttttccagcaaaggatctcaa 420

Qy   2074 ggaaaaggaccttcattcaatatttactcatgattctggtctgataacaataaacagttc 2133
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    421 ggaaaaggaccttcattcaatatttactcatgattctggtctgataacaataaacagttc 480

Qy   2134 acaagagcacctaactgttcaggcaaaggctccattccatactcctcctgaggaacccaa 2193
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    481 acaagagcacctaactgttcaggcaaaggctccattccatactcctcctgaggaacccaa 540

Qy   2194 tgaatgtgacttcaagaatatggatagtttaccttctggtaaaatacatcgaaaagtgaa 2253
           ||||||||||||||||||||||||||||||||| ||||||||||||||||||||||||
Db    541 tgaatgtgacttcaagaatatggatagtttaccctctggtaaaatacatcgaaaagtgaa 600

Qy   2254 aataatattaggacgaaatagaaaagaaaatctggaaccaaatgctgaatttgataaaag 2313
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    601 aataatattaggacgaaatagaaaagaaaatctggaaccaaatgctgaatttgataaaag 660

Qy   2314 aactgaatttattacacaagaagaaaacagaatttgtagttcaccggtacagtctttact 2373
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    661 aactgaatttattacacaagaagaaaacagaatttgtagttcaccggtacagtctttact 720

Qy   2374 agacttgtttcagactagtgaagagaaatcagaatttttgggtttcacaagctacacaga 2433
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    721 agacttgtttcagactagtgaagagaaatcagaatttttgggtttcacaagctacacaga 780

Qy   2434 aaagagtggtatatgcaatgttttagatatttgggaagaggaaaattcagataatctgtt 2493
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    781 aaagagtggtatatgcaatgttttagatatttgggaagaggaaaattcagataatctgtt 840

Qy   2494 aacagcgtttttctcgtccccttcaacttctacatttactggcttttagaatttaaaaaa 2553
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    841 aacagcgtttttctcgtccccttcaacttctacatttactggcttttagaatttaaaaaa 900

Qy   2554 tgcatacttttcagaagtgataaggatcatattcttgaaatttttataaatatgtatgga 2613
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    901 tgcatacttttcagaagtgataaggatcatattcttgaaatttttataaatatgtatgga 960

Qy   2614 aattcttaggatttttttaccagctttgtttacagacccaaatgtaaatattaaaaataa 2673
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    961 aattcttaggatttttttaccagctttgtttacagacccaaatgtaaatattaaaaataa 1020

Qy   2674 atatttgcaattttctacagaattgaatacctgttaaagaaaaattacagaataaacttg 2733
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1021 atatttgcaattttctacagaattgaatacctgttaaagaaaaattacagaataaacttg 1080

Qy   2734 tgactggtcttgttttacattaaaaaaa 2761
           ||||||||||||||||||| | | |
Db   1081 tgactggtcttgttttacattatatata 1108


RESULT   7
AAI22968/c
ID   AAI22968 standard; DNA; 1031 BP.
XX
AC   AAI22968;
XX
DT   12-OCT-2001  (first entry)
XX
DE   Probe #12901 for gene expression analysis in human cervical cell sample.
```

```
XX
KW   Probe; human; microarray; gene expression; cervical epithelial cell;
KW   cervical cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157278-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00670.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488901/53.
XX
PT   Human genome-derived single exon nucleic acid probes useful for
PT   analyzing gene expression in human cervical epithelial cells -
XX
PS   Claim 25; SEQ ID No 12901; 487pp; English.
XX
CC   The present invention relates to human single exon nucleic acid probes
CC   (SENP). The present sequence is one such probe. The SENPs are derived
CC   from human HeLa cells. The SENPs can be used to produce a single exon
CC   microarray, which can be used for measuring human gene expression in a
CC   sample derived from human cervical epithelial cells. By measuring gene
CC   expression, the probes are therefore useful in grading and/or staging
CC   of diseases of the cervix, notably cervical cancer.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 1031 BP; 290 A; 181 C; 180 G; 380 T; 0 other;


  Query Match             34.7%;  Score 965;  DB 22;  Length 1031;
  Best Local Similarity   100.0%;  Pred. No. 9.3e-207;
  Matches  965;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy   1563 aaagaataaaatacagtgttggatccctttctcctgtttctgcaagtgtcctgaaaaaga 1622
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    965 AAAGAATAAAATACAGTGTTGGATCCCTTTCTCCTGTTTCTGCAAGTGTCCTGAAAAAGA 906

Qy   1623 ctgaacaaaaggaaaaagtggaattgcaacatatttctcagaaagattgccaggaagatg 1682
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    905 CTGAACAAAAGGAAAAAGTGGAATTGCAACATATTTCTCAGAAAGATTGCCAGGAAGATG 846

Qy   1683 atacaacagtgaaggagcagaatttcctgtataaagagacccaggaaactgaaaaaaagc 1742
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    845 ATACAACAGTGAAGGAGCAGAATTTCCTGTATAAAGAGACCCAGGAAACTGAAAAAAGC 786

Qy   1743 tcctgtttatttcagagcccatcccccaccttcaaatgaattgagagggcttaatgaga 1802
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    785 TCCTGTTTATTTCAGAGCCCATCCCCCACCCTTCAAATGAATTGAGAGGGCTTAATGAGA 726

Qy   1803 aaatgagtaataaatgttccatgttaagtacagctgaagatgacataagacagaatttta 1862
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    725 AAATGAGTAATAAATGTTCCATGTTAAGTACAGCTGAAGATGACATAAGACAGAATTTTA 666

Qy   1863 cacagctacctctacataaaaacaaacaggaatgcattcttgacatttccgaacacacat 1922
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    665 CACAGCTACCTCTACATAAAAACAAACAGGAATGCATTCTTGACATTTCCGAACACACAT 606

Qy   1923 taagtgaaaatgacttagaagaactaagggtagatcactataaatgtaacatacaggcat 1982
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    605 TAAGTGAAAATGACTTAGAAGAACTAAGGGTAGATCACTATAAATGTAACATACAGGCAT 546

Qy   1983 ctgtacatgtttctgatttcagtacagataatagtggatctcaaccaaaacagaagtcag 2042
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    545 CTGTACATGTTTCTGATTTCAGTACAGATAATAGTGGATCTCAACCAAAACAGAAGTCAG 486

Qy   2043 atactgtgctttttccagcaaaggatctcaaggaaaaggaccttcattcaatatttactc 2102
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    485 ATACTGTGCTTTTTCCAGCAAAGGATCTCAAGGAAAAGGACCTTCATTCAATATTTACTC 426

Qy   2103 atgattctggtctgataacaataaacagttcacaagagcacctaactgttcaggcaaagg 2162
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    425 ATGATTCTGGTCTGATAACAATAAACAGTTCACAAGAGCACCTAACTGTTCAGGCAAAGG 366

Qy   2163 ctccattccatactcctcctgaggaacccaatgaatgtgacttcaagaatatggatagtt 2222
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    365 CTCCATTCCATACTCCTCCTGAGGAACCCAATGAATGTGACTTCAAGAATATGGATAGTT 306

Qy   2223 taccttctggtaaaatacatcgaaaagtgaaaataatattaggacgaaatagaaaagaaa 2282
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    305 TACCTTCTGGTAAAATACATCGAAAAGTGAAAATAATATTAGGACGAAATAGAAAAGAAA 246

Qy   2283 atctggaaccaaatgctgaatttgataaaagaactgaatttattacacaagaagaaaaca 2342
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    245 ATCTGGAACCAAATGCTGAATTTGATAAAAGAACTGAATTTATTACACAAGAAGAAAACA 186

Qy   2343 gaatttgtagttcaccggtacagtctttactagacttgtttcagactagtgaagagaaat 2402
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    185 GAATTTGTAGTTCACCGGTACAGTCTTTACTAGACTTGTTTCAGACTAGTGAAGAGAAAT 126

Qy   2403 cagaatttttgggtttcacaagctacacagaaaagagtggtatatgcaatgttttagata 2462
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    125 CAGAATTTTTGGGTTTCACAAGCTACACAGAAAAGAGTGGTATATGCAATGTTTTAGATA 66

Qy   2463 tttgggaagaggaaaattcagataatctgttaacagcgtttttctcgtccccttcaacttt 2522
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     65 TTTGGGAAGAGGAAAATTCAGATAATCTGTTAACAGCGTTTTTCTCGTCCCCTTCAACTT 6

Qy   2523 ctaca 2527
           |||||
Db      5 CTACA 1


RESULT   8
AAI08634/c
ID   AAI08634 standard; DNA; 1031 BP.
XX
AC   AAI08634;
XX
DT   09-OCT-2001  (first entry)
XX
DE   Probe #8625 used to measure gene expression in human breast sample.
XX
KW   Probe; human; breast disease; breast cancer; development disorder; ss;
KW   inflammatory disease; proliferative breast disease; non-carcinoma tumour.
XX
OS   Homo sapiens.
XX
PN   WO200157270-A2.
XX
PD   09-AUG-2001.
XX
PF   29-JAN-2001; 2001WO-US00661.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
```

XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-476286/51.
XX
PT Novel single exon nucleic acid probe used to measuring gene expression
PT in a human breast -
XX
PS Claim 25; SEQ ID No 8625; 322pp; English.
XX
CC The present invention relates to novel single exon nucleic acid probes.
CC The present sequence is one such probe. The probes are useful for
CC measuring human gene expression in a human breast sample, where the probe
CC hybridises at high stringency to a nucleic acid expressed in the human
CC breast. The probes are useful for predicting, diagnosing, grading,
CC staging, monitoring and prognosing diseases of the human breast,
CC particularly those diseases with polygenic aetiology. The diseases
CC include: breast cancer, disorders of development, inflammatory diseases
CC of the breast, fibrocystic changes, proliferative breast disease and
CC non-carcinoma tumours.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 1031 BP; 290 A; 181 C; 180 G; 380 T; 0 other;

Query Match 34.7%; Score 965; DB 22; Length 1031;
Best Local Similarity 100.0%; Pred. No. 9.3e-207;
Matches 965; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy   1563 aaagaataaaatacagtgttggatccctttctcctgtttctgcaagtgtcctgaaaaaga 1622
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    965 AAAGAATAAAATACAGTGTTGGATCCCTTTCTCCTGTTTCTGCAAGTGTCCTGAAAAAGA 906

Qy   1623 ctgaacaaaaggaaaaagtggaattgcaacatatttctcagaaagattgccaggaagatg 1682
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    905 CTGAACAAAAGGAAAAAGTGGAATTGCAACATATTTCTCAGAAAGATTGCCAGGAAGATG 846

Qy   1683 atacaacagtgaaggagcagaatttcctgtataaagagacccaggaaactgaaaaaaagc 1742
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    845 ATACAACAGTGAAGGAGCAGAATTTCCTGTATAAAGAGACCCAGGAAACTGAAAAAAAGC 786

Qy   1743 tcctgtttatttcagagcccatcccccacccttcaaatgaattgagagggcttaatgaga 1802
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    785 TCCTGTTTATTTCAGAGCCCATCCCCCACCCTTCAAATGAATTGAGAGGGCTTAATGAGA 726

Qy   1803 aaatgagtaataaatgttccatgttaagtacagctgaagatgacataagacagaatttta 1862
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    725 AAATGAGTAATAAATGTTCCATGTTAAGTACAGCTGAAGATGACATAAGACAGAATTTTA 666

Qy   1863 cacagctacctctacataaaaacaaacaggaatgcattcttgacatttccgaacacacat 1922
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    665 CACAGCTACCTCTACATAAAAACAAACAGGAATGCATTCTTGACATTTCCGAACACACAT 606

Qy   1923 taagtgaaaatgacttagaagaactaagggtagatcactataaatgtaacatacaggcat 1982
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    605 TAAGTGAAAATGACTTAGAAGAACTAAGGGTAGATCACTATAAATGTAACATACAGGCAT 546

Qy   1983 ctgtacatgtttctgatttcagtacagataatagtggatctcaaccaaaacagaagtcag 2042
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    545 CTGTACATGTTTCTGATTTCAGTACAGATAATAGTGGATCTCAACCAAAACAGAAGTCAG 486

Qy   2043 atactgtgctttttccagcaaaggatctcaaggaaaaggaccttcattcaatatttactc 2102
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    485 ATACTGTGCTTTTTCCAGCAAAGGATCTCAAGGAAAAGGACCTTCATTCAATATTTACTC 426

Qy   2103 atgattctggtctgataacaataaacagttcacaagagcacctaactgttcaggcaaagg 2162
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    425 ATGATTCTGGTCTGATAACAATAAACAGTTCACAAGAGCACCTAACTGTTCAGGCAAAGG 366

Qy   2163 ctccattccatactcctcctgaggaacccaatgaatgtgacttcaagaatatggatagtt 2222
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    365 CTCCATTCCATACTCCTCCTGAGGAACCCAATGAATGTGACTTCAAGAATATGGATAGTT 306

Qy   2223 taccttctggtaaaatacatcgaaaagtgaaaataatattaggacgaaatagaaaagaaa 2282
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    305 TACCTTCTGGTAAAATACATCGAAAAGTGAAAATAATATTAGGACGAAATAGAAAAGAAA 246

Qy   2283 atctggaaccaaatgctgaatttgataaaagaactgaatttattacacaagaagaaaaca 2342
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    245 ATCTGGAACCAAATGCTGAATTTGATAAAAGAACTGAATTTATTACACAAGAAGAAAACA 186

Qy   2343 gaatttgtagttcaccggtacagtctttactagacttgtttcagactagtgaagagaaat 2402
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    185 GAATTTGTAGTTCACCGGTACAGTCTTTACTAGACTTGTTTCAGACTAGTGAAGAGAAAT 126

Qy   2403 cagaatttttgggtttcacaagctacacagaaaagagtggtatatgcaatgttttagata 2462
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    125 CAGAATTTTTGGGTTTCACAAGCTACACAGAAAAGAGTGGTATATGCAATGTTTTAGATA 66

Qy   2463 tttgggaagaggaaaattcagataatctgttaacagcgtttttctcgtccccttcaactt 2522
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     65 TTTGGGAAGAGGAAAATTCAGATAATCTGTTAACAGCGTTTTTCTCGTCCCCTTCAACTT 6

Qy   2523 ctaca 2527
          |||||
Db      5 CTACA 1
```

RESULT 9
AAH06140
ID AAH06140 standard; cDNA; 903 BP.
XX
AC AAH06140;
XX
DT 26-JUN-2001 (first entry)
XX
DE Human cDNA clone (5'-primer) SEQ ID NO:2975.
XX
KW Human; primer; detection; diagnosis; antisense therapy; gene therapy; ss.
XX
OS Homo sapiens.
XX
PN EP1074617-A2.
XX
PD 07-FEB-2001.
XX
PF 28-JUL-2000; 2000EP-0116126.
XX
PR 29-JUL-1999; 99JP-0248036.
PR 27-AUG-1999; 99JP-0300253.
PR 11-JAN-2000; 2000JP-0118776.
PR 02-MAY-2000; 2000JP-0183767.
PR 09-JUN-2000; 2000JP-0241899.
XX
PA (HELI-) HELIX RES INST.
XX
PI Ota T, Isogai T, Nishikawa T, Hayashi K, Saito K, Yamamoto J;
PI Ishii S, Sugiyama T, Wakamatsu A, Nagai K, Otsuki T;
XX
DR WPI; 2001-318749/34.
XX
PT Primer sets for synthesizing polynucleotides, particularly the 5602
PT full-length cDNAs defined in the specification, and for the detection
PT and/or diagnosis of the abnormality of the proteins encoded by the
PT full-length cDNAs -
XX
PS Claim 1; SEQ ID 2975; 2537pp + CD ROM; English.
XX
CC The present invention describes primer sets for synthesising 5602
CC full-length cDNAs defined in the specification. Where a primer set
CC comprises: (a) an oligo-dT primer and an oligonucleotide complementary
CC to the complementary strand of a polynucleotide which comprises one of

```
CC   the 5602 nucleotide sequences defined in the specification, where the
CC   oligonucleotide comprises at least 15 nucleotides; or (b) a combination
CC   of an oligonucleotide comprising a sequence complementary to the
CC   complementary strand of a polynucleotide which comprises a 5'-end
CC   sequence and an oligonucleotide comprising a sequence complementary to a
CC   polynucleotide which comprises a 3'-end sequence, where the
CC   oligonucleotide comprises at least 15 nucleotides and the combination of
CC   the 5'-end sequence/3'-end sequence is selected from those defined in
CC   the specification. The primer sets can be used in antisense therapy and
CC   in gene therapy. The primers are useful for synthesising polynucleotides,
CC   particularly full-length cDNAs. The primers are also useful for the
CC   detection and/or diagnosis of the abnormality of the proteins encoded by
CC   the full-length cDNAs. The primers allow obtaining of the full-length
CC   cDNAs easily without any specialised methods. AAH03166 to AAH13628 and
CC   AAH13633 to AAH18742 represent human cDNA sequences; AAB92446 to
CC   AAB95893 represent human amino acid sequences; and AAH13629 to AAH13632
CC   represent oligonucleotides, all of which are used in the exemplification
CC   of the present invention.
XX
SQ   Sequence 903 BP; 326 A; 165 C; 157 G; 242 T; 13 other;

  Query Match             26.0%;  Score 721.6;  DB 22;  Length 903;
  Best Local Similarity   92.3%;  Pred. No. 3.1e-152;
  Matches  820;  Conservative    0;  Mismatches   56;  Indels   12;  Gaps    6;

Qy   1654 tatttctcagaaagattgccaggaagatgatacaacagt-gaaggagcagaatttcctgt 1712
            ||||||||||||||||||||||||||||||||||||| |||||||||||||||||||
Db      1 tatttctcagaaagattgccaggaagatgatacaacagtggaaggagcagaatttcctgt 60

Qy   1713 ataaagagacccaggaaactgaaaaaaagctcctgtttatttcagagcccatcccccacc 1772
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 ataaagagacccaggaaactgaaaaaaagctcctgtttatttcagagcccatcccccacc 120

Qy   1773 cttcaaatgaattgagagggcttaatgagaaaatgagtaataaatgttccatgttaagta 1832
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 cttcaaatgaattgagagggcttaatgagaaaatgagtaataaatgttccatgttaagta 180

Qy   1833 cagctgaagatgacataagacagaattttacacagctacctctacataaaaacaaacagg 1892
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 cagctgaagatgacataagacagaattttacacagctacctctacataaaaacaaacagg 240

Qy   1893 aatgcattcttgacatttccgaacacacattaagtgaaaatgacttagaagaactaaggg 1952
            |||||||||||||||||||||||||||||||||||||||||||||||||||||| |||
Db    241 aatgcattcttgacatttccgaacacacattaagtgaaaatgacttagaagaactanggg 300

Qy   1953 tagatcactataaatgtaacatacaggcatctgtacatgtttctgatttcagtacagata 2012
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 tagatcactataaatgtaacatacaggcatctgtacatgtttctgatttcagtacagata 360

Qy   2013 atagtggatctcaaccaaaacagaagtcagatactgtgctttttccagcaaaggatctca 2072
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 atagtggatctcaaccaaaacagaagtcagatactgtgctttttccagcaaaggatctca 420

Qy   2073 aggaaaaggaccttcattcaatatttactcatgattctggtctgataacaataaacagtt 2132
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    421 aggaaaaggaccttcattcaatatttactcatgattctggtctgataacaataaacagtt 480

Qy   2133 cacaagagcacctaactgttcaggcaaaggctccattccatactcctcctgaggaaccca 2192
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    481 cacaagagcacctaactgttcaggcnaaggctccattccatactcctcctgaggaaccca 540

Qy   2193 atgaatgtgacttcaagaatatggatagtttaccttctggtaaaatacatcgaaaagtga 2252
            ||||||||||||||||||||||||||||||||||||| |||||| ||||||||||||||
Db    541 atgaatgtgacttcaagaatatggatagtttaccctctggtnaaatacatcgaaaagtga 600

Qy   2253 aaataatatta-ggacgaaatagaaaagaaaatctggaaccaaatgctgaatttgataaa 2311
            |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db    601 aaataatattagggacgaaatagaaaagaaaatctggaaccaaatgctgaatttgataaa 660

Qy   2312 agaactgaatttattacacaagaagaaaacagaatttgtagttcaccggtacagtcttta 2371
            |||||||||||||| | | |||||||||| |||||||  ||||||||||||||||||||
Db    661 agaactgaatttattnccccagaagaaaacngaatttgt-tttcaccggtacagtcttta 719

Qy   2372 ctagacttgtttcagactagtgaagagaaatcagaatttttgggtttcacaagctacaca 2431
            ||| |||  ||          ||| | ||||| ||||||||||||||| |||||||| ||
Db    720 ctanactgtttcagactagtggaaaaaaaatcngaatttttgggtttcncaagctaccca 779

Qy   2432 gaaaa--gagtggtatatgcaatgttttagatatttggg-----aagaggaaaattcaga 2484
            |||||   | ||||||||||| |||||||  | || | ||     ||||  ||     |
Db    780 gaaaaagaattggtatatgccatgtttttaanatattggggaaaaagaaaaattccnaat 839

Qy   2485 taatctgttaacagcgttttt--ctcgtccccttcaacttctacattt 2530
            |    ||||||||||||||  |  ||||| | |||||||| |  ||
Db    840 aatctggttaacagcgttttttcccngtcccttccaacttcttccntt 887


RESULT  10
AAF64883
ID   AAF64883 standard; cDNA; 685 BP.
XX
AC   AAF64883;
XX
DT   09-APR-2001  (first entry)
XX
DE   Novel human polynucleotide, SEQ ID NO: 639.
XX
KW   Human; cytostatic; gene therapy; colon cancer; prostate cancer;
KW   breast cancer; lung cancer; cancer detection; ss.
XX
OS   Homo sapiens.
XX
PN   WO200102568-A2.
XX
PD   11-JAN-2001.
XX
PF   30-JUN-2000; 2000WO-US18374.
XX
PR   02-JUL-1999;   99US-0142310.
PR   02-JUL-1999;   99US-0142311.
XX
PA   (CHIR ) CHIRON CORP.
PA   (HYSE-) HYSEQ INC.
XX
PI   Williams LT,  Escobedo J,  Innis MA,  Garcia PD,  Klinger J,  Kassam A;
PI   Reinhard C,  Randazzo F,  Kennedy GC,  Pot D,  Lamson G,  Drmanac R;
PI   Crkenjakov R,  Drmanac S,  Dickson M,  Labat I,  Leshkowitiz D;
PI   Kita D,  Garcia V,  Jones LW,  Strache-Crain B;
XX
DR   WPI; 2001-091805/10.
XX
PT   Library of polynucleotides for diagnosing a cancerous state of a
PT   mammalian cell and detecting cancer, particularly of the colon or
PT   prostate, comprises 3351 human polynucleotide sequences -
XX
PS   Claim 9; Page 636; 1046pp; English.
XX
CC   The present sequence is one of 3351 sequences in a library of human
CC   polynucleotides. The library is used to detect differentially expressed
CC   genes correlated with a cancerous state of a mammalian cell and can
CC   detect colon, prostate, breast and lung cancer. The library can be used
CC   to produce probes for detection of mRNA and to produce additional copies
CC   of the polynucleotides. The probes can be used for chromosome mapping of
CC   the polynucleotide and for detection of transcription levels. Ribozymes
CC   or antisense oligonucleotides can be generated. The polynucleotides and
CC   their gene products are used as genetic or biochemical markers (e.g. in
CC   blood or tissues) that will detect the earliest changes along the
CC   carcinogenesis pathway and/or monitor the efficacy of therapies and
CC   preventive interventions. The polynucleotides, polypeptides and
CC   antibodies against them can be used in pharmaceutical compositions to
CC   treat the cancers and proliferative disorders such as neoplasia,
CC   dysplasia and hyperplasia.
XX
SQ   Sequence 685 BP; 238 A; 127 C; 125 G; 187 T; 8 other;
```

```
  Query Match            18.5%;  Score 513.8;  DB 22;  Length 685;
  Best Local Similarity  94.9%;  Pred. No. 1e-105;
  Matches  560;  Conservative    0;  Mismatches   24;  Indels    6;  Gaps    3;

Qy     558 tccagggtggaatccaagtcaaaaatgaaaaaaacagaccatctctgaaatctctgaaaa 617
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 tccagggtggaatccaagtcaaaaatgaaaaaaacagaccatctctgaaatctctgaaaa 60

Qy     618 ctgataacaggccagaaaaatccaaatgtaagccactttggggaaaagtattttaccttg 677
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 ctgataacaggccagaaaaatccaaatgtaagccactttggggaaaagtattttaccttg 120

Qy     678 acttaccttctgtcaccatatctgaaaaacttcaaaaggacattaaggatctgggagggc 737
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 acttaccttctgtcaccatatctgaaaaacttcaaaaggacattaaggatctgggagggc 180

Qy     738 gagttgaagaatttctcagcaaagatatcagttatcttatttcaaataagaaggaagcta 797
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 gagttgaagaatttctcagcaaagatatcagttatcttatttcaaataagaaggaagcta 240

Qy     798 aatttgcacaaaccttgggtcgaatttctcctgtaccaagtccagaatctgcatatactg 857
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 aatttgcacaaaccttgggtcgaatttctcctgtaccaagtccagaatctgcatatactg 300

Qy     858 cagaaaccacttcacctcatcccagccatgatggaagttcatttaagtcaccagacacag 917
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 cagaaaccacttcacctcatcccagccatgatggaagttcatttaagtcaccagacacag 360

Qy     918 tgtgtttaagcagaggaaaattattagttgaaaaagctatcaaggaccatgattttattc 977
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     361 tgtgtttaagcagaggaaaattattagttgaaaaagctatcaaggaccatgattttattc 420

Qy     978 cttcaaatagtatattatcaaatgccttgtcatggggagtaaaaattcttcatattgatg 1037
           |||||||||||||||||||||||||||||||| ||||| ||||||||||||||||||||
Db     421 cttcaaatagtatattatcaaatgccttgtcatggngagtanaaattcttcatattgatg 480

Qy    1038 acattagatactacattgaacaaaagaaaaaagagttgtatttactcaagaaatcaagta 1097
           |||||||||||||||||||| |||||||||    |   ||||||||| |||    |  |
Db     481 acattagatactacattgaacanaagaaaaagagnt--gatttactcacgaa--tcanga 536

Qy    1098 cttcagtaagagatgggggcaaaagagttggtagtggtgcacaaaaaaca 1147
           ||||| ||  ||||||||   ||| |  | ||||||||| || ||| ||
Db     537 cttcattannagatgggg--caaaaaagttgtagtggtgcccataaacca 584


RESULT  11
AAF66758
ID   AAF66758 standard; cDNA; 422 BP.
XX
AC   AAF66758;
XX
DT   09-APR-2001  (first entry)
XX
DE   Novel human polynucleotide, SEQ ID NO: 2514.
XX
KW   Human; cytostatic; gene therapy; colon cancer; prostate cancer;
KW   breast cancer; lung cancer; cancer detection; ss.
XX
OS   Homo sapiens.
XX
PN   WO200102568-A2.
XX
PD   11-JAN-2001.
XX
PF   30-JUN-2000; 2000WO-US18374.
XX
PR   02-JUL-1999;   99US-0142310.
PR   02-JUL-1999;   99US-0142311.
XX
PA   (CHIR ) CHIRON CORP.
PA   (HYSE-) HYSEQ INC.
XX
PI   Williams LT,  Escobedo J,  Innis MA,  Garcia PD,  Klinger J,  Kassam A;
PI   Reinhard C,  Randazzo F,  Kennedy GC,  Pot D,  Lamson G,  Drmanac R;
PI   Crkenjakov R,  Drmanac S,  Dickson M,  Labat I,  Leshkowitiz D;
PI   Kita D,  Garcia V,  Jones LW,  Strache-Crain B;
XX
DR   WPI; 2001-091805/10.
XX
PT   Library of polynucleotides for diagnosing a cancerous state of a
PT   mammalian cell and detecting cancer, particularly of the colon or
PT   prostate, comprises 3351 human polynucleotide sequences -
XX
PS   Claim 9; Page 915; 1046pp; English.
XX
CC   The present sequence is one of 3351 sequences in a library of human
CC   polynucleotides. The library is used to detect differentially expressed
CC   genes correlated with a cancerous state of a mammalian cell and can
CC   detect colon, prostate, breast and lung cancer. The library can be used
CC   to produce probes for detection of mRNA and to produce additional copies
CC   of the polynucleotides. The probes can be used for chromosome mapping of
CC   the polynucleotide and for detection of transcription levels. Ribozymes
CC   or antisense oligonucleotides can be generated. The polynucleotides and
CC   their gene products are used as genetic or biochemical markers (e.g. in
CC   blood or tissues) that will detect the earliest changes along the
CC   carcinogenesis pathway and/or monitor the efficacy of therapies and
CC   preventive interventions. The polynucleotides, polypeptides and
CC   antibodies against them can be used in pharmaceutical compositions to
CC   treat the cancers and proliferative disorders such as neoplasia,
CC   dysplasia and hyperplasia.
XX
SQ   Sequence 422 BP; 147 A; 77 C; 75 G; 123 T; 0 other;


  Query Match            14.8%;  Score 411;  DB 22;  Length 422;
  Best Local Similarity  100.0%;  Pred. No. 9.2e-83;
  Matches  411;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     663 aagtattttaccttgacttaccttctgtcaccatatctgaaaaacttcaaaaggacatta 722
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      12 aagtattttaccttgacttaccttctgtcaccatatctgaaaaacttcaaaaggacatta 71

Qy     723 aggatctgggagggcgagttgaagaatttctcagcaaagatatcagttatcttatttcaa 782
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      72 aggatctgggagggcgagttgaagaatttctcagcaaagatatcagttatcttatttcaa 131

Qy     783 ataagaaggaagctaaatttgcacaaaccttgggtcgaatttctcctgtaccaagtccag 842
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     132 ataagaaggaagctaaatttgcacaaaccttgggtcgaatttctcctgtaccaagtccag 191

Qy     843 aatctgcatatactgcagaaaccacttcacctcatcccagccatgatggaagttcattta 902
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     192 aatctgcatatactgcagaaaccacttcacctcatcccagccatgatggaagttcattta 251

Qy     903 agtcaccagacacagtgtgtttaagcagaggaaaattattagttgaaaaagctatcaagg 962
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     252 agtcaccagacacagtgtgtttaagcagaggaaaattattagttgaaaaagctatcaagg 311

Qy     963 accatgattttattccttcaaatagtatattatcaaatgccttgtcatggggagtaaaaa 1022
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     312 accatgattttattccttcaaatagtatattatcaaatgccttgtcatggggagtaaaaa 371

Qy    1023 ttcttcatattgatgacattagatactacattgaacaaaagaaaaaagagt 1073
           |||||||||||||||||||||||||||||||||||||||||||||||||||
Db     372 ttcttcatattgatgacattagatactacattgaacaaaagaaaaaagagt 422


RESULT  12
AAF64912
ID   AAF64912 standard; cDNA; 403 BP.
XX
AC   AAF64912;
XX
DT   09-APR-2001  (first entry)
XX
DE   Novel human polynucleotide, SEQ ID NO: 668.
```

XX
KW Human; cytostatic; gene therapy; colon cancer; prostate cancer;
KW breast cancer; lung cancer; cancer detection; ss.
XX
OS Homo sapiens.
XX
PN WO200102568-A2.
XX
PD 11-JAN-2001.
XX
PF 30-JUN-2000; 2000WO-US18374.
XX
PR 02-JUL-1999; 99US-0142310.
PR 02-JUL-1999; 99US-0142311.
XX
PA (CHIR) CHIRON CORP.
PA (HYSE-) HYSEQ INC.
XX
PI Williams LT, Escobedo J, Innis MA, Garcia PD, Klinger J, Kassam A;
PI Reinhard C, Randazzo F, Kennedy GC, Pot D, Lamson G, Drmanac R;
PI Crkenjakov R, Drmanac S, Dickson M, Labat I, Leshkowitiz D;
PI Kita D, Garcia V, Jones LW, Strache-Crain B;
XX
DR WPI; 2001-091805/10.
XX
PT Library of polynucleotides for diagnosing a cancerous state of a
PT mammalian cell and detecting cancer, particularly of the colon or
PT prostate, comprises 3351 human polynucleotide sequences -
XX
PS Claim 9; Page 640; 1046pp; English.
XX
CC The present sequence is one of 3351 sequences in a library of human
CC polynucleotides. The library is used to detect differentially expressed
CC genes correlated with a cancerous state of a mammalian cell and can
CC detect colon, prostate, breast and lung cancer. The library can be used
CC to produce probes for detection of mRNA and to produce additional copies
CC of the polynucleotides. The probes can be used for chromosome mapping of
CC the polynucleotide and for detection of transcription levels. Ribozymes
CC or antisense oligonucleotides can be generated. The polynucleotides and
CC their gene products are used as genetic or biochemical markers (e.g. in
CC blood or tissues) that will detect the earliest changes along the
CC carcinogenesis pathway and/or monitor the efficacy of therapies and
CC preventive interventions. The polynucleotides, polypeptides and
CC antibodies against them can be used in pharmaceutical compositions to
CC treat the cancers and proliferative disorders such as neoplasia,
CC dysplasia and hyperplasia.
XX
SQ Sequence 403 BP; 144 A; 82 C; 76 G; 101 T; 0 other;

Query Match 13.8%; Score 384.4; DB 22; Length 403;
Best Local Similarity 99.7%; Pred. No. 8.2e-77;
Matches 385; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy    555 atttccagggtggaatccaagtcaaaaatgaaaaaaacagaccatctctgaaatctctga 614
          | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     18 agttccagggtggaatccaagtcaaaaatgaaaaaaacagaccatctctgaaatctctga 77

Qy    615 aaactgataacaggccagaaaaatccaaatgtaagccactttggggaaaagtattttacc 674
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     78 aaactgataacaggccagaaaaatccaaatgtaagccactttggggaaaagtattttacc 137

Qy    675 ttgacttaccttctgtcaccatatctgaaaaacttcaaaaggacattaaggatctgggag 734
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    138 ttgacttaccttctgtcaccatatctgaaaaacttcaaaaggacattaaggatctgggag 197

Qy    735 ggcgagttgaagaatttctcagcaaagatatcagttatcttatttcaaataagaaggaag 794
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    198 ggcgagttgaagaatttctcagcaaagatatcagttatcttatttcaaataagaaggaag 257

Qy    795 ctaaatttgcacaaaccttgggtcgaatttctcctgtaccaagtccagaatctgcatata 854
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    258 ctaaatttgcacaaaccttgggtcgaatttctcctgtaccaagtccagaatctgcatata 317

Qy    855 ctgcagaaaccacttcacctcatcccagccatgatggaagttcatttaagtcaccagaca 914
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    318 ctgcagaaaccacttcacctcatcccagccatgatggaagttcatttaagtcaccagaca 377

Qy    915 cagtgtgtttaagcagaggaaaatta 940
          |||||||||||||||||||||||||
Db    378 cagtgtgtttaagcagaggaaaatta 403
```

RESULT 13
AAA43876
ID AAA43876 standard; cDNA; 318 BP.
XX
AC AAA43876;
XX
DT 21-AUG-2000 (first entry)
XX
DE Human secreted expressed sequence tag SEQ ID NO:451.
XX
KW Human; mouse; chicken; rat; secreted expressed sequence tag; sEST;
KW expressed sequence tag; EST; probe; chemotactic; proliferative;
KW immunomodulatory; haematopoietic; chemokinetic; analgesic; haemostatic;
KW thrombolytic; antiinflammatory; cytostatic; antibacterial; antifungal;
KW antiviral; antidiabetic; antiasthmatic; vulnerary; antiparkinsonian;
KW antiulcer; osteopathic; neuroprotective; nootropic; antipsoriatic;
KW cerebroprotective; anticonvulsant; antidepressant; gene therapy;
KW vaccine; autoimmune disorder; multiple sclerosis; allergic condition;
KW insulin dependent diabetes; asthma; myeloid cell deficiency; ulcer;
KW lymphoid cell deficiency; burn; osteoporosis; osteoarthritis;
KW central nervous system disorder; Alzheimer's disease; stroke;
KW Parkinson's disease; Huntington's disease; coagulation disorder;
KW haemophilia; thrombosis; inflammatory disorder; Crohn's disease;
KW tumour; infection; depression; psoriasis; ss.
XX
OS Homo sapiens.
XX
PN WO200021991-A1.
XX
PD 20-APR-2000.
XX
PF 15-OCT-1999; 99WO-US24206.
XX
PR 15-OCT-1998; 98US-0104436.
XX
PA (GEMY) GENETICS INST INC.
XX
PI Jacobs K, McCoy JM, LaVallie ER, Collins-Racie LA, Evans C;
PI Merberg D, Treacy M, Bowman MR;
XX
DR WPI; 2000-317938/27.
XX
PT Isolated polynucleotides, and encoded proteins, comprising secreted
PT expressed sequence tags (sESTs), useful for treating various disorders
PT such as autoimmune, infectious, and central nervous system disorders -
XX
PS Claim 1; Page 321; 803pp; English.
XX
CC AAA43426 to AAA45925 represent specifically claimed secreted expressed
CC sequence tags (sESTs), isolated from human, mouse, chicken and rat
CC tissue sources. The sESTs can have a range of activities depending on
CC the tissues they were isolated from. The activities include:
CC chemotactic; proliferative; immunomodulatory; haematopoietic;
CC chemokinetic; analgesic; haemostatic; thrombolytic; antiinflammatory;
CC cytostatic; antibacterial; antifungal; antiviral; antidiabetic;
CC antiasthmatic; vulnerary; antiulcer; osteopathic; neuroprotective;
CC nootropic; antiparkinsonian; antipsoriatic; cerebroprotective;
CC anticonvulsant; and antidepressant. The sESTs can be used for gene
CC therapy and in vaccines. The sESTs are useful as probes for the
CC identification and isolation of full-length cDNAs and genomic DNA
CC molecules which correspond to the sESTs. Proteins encoded by the sESTs
CC are useful in assays for determining biological activity and raising
CC antibodies. They may be useful for treatment of autoimmune disorders

```
CC   (multiple sclerosis, insulin dependent diabetes), allergic conditions
CC   (asthma), myeloid or lymphoid cell deficiencies, wounds, burns, ulcers,
CC   osteoporosis, osteoarthritis, central nervous system disorders
CC   (Alzheimer's, Parkinson's, Huntington's disease, stroke), coagulation
CC   disorders (haemophilia, thrombosis), inflammatory disorders (Crohn's
CC   disease), tumours, bacterial, fungal or viral infections, depression and
CC   psoriasis. AAA45926 to AAA45931 represent linker variants which are given
CC   in the exemplification of the present invention.
XX
SQ   Sequence 318 BP; 108 A; 69 C; 54 G; 86 T; 1 other;


  Query Match             10.6%;  Score 294.6;  DB 21;  Length 318;
  Best Local Similarity   96.8%;  Pred. No. 9.9e-57;
  Matches  300;  Conservative    0;  Mismatches   10;  Indels    0;  Gaps    0;

Qy   1873 tctacataaaaacaaacaggaatgcattcttgacatttccgaacacacattaagtgaaaa 1932
           ||  | |  |  |  ||||||||||||||||||||||||||||||||||||||||||||||||
Db      5 tcggccttcatgcctacaggaatgcattcttgacatttccgaacacacattaagtgaaaa 64

Qy   1933 tgacttagaagaactaagggtagatcactataaatgtaacatacaggcatctgtacatgt 1992
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     65 tgacttagaagaactaagggtagatcactataaatgtaacatacaggcatctgtacatgt 124

Qy   1993 ttctgatttcagtacagataatagtggatctcaaccaaaacagaagtcagatactgtgct 2052
          |||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db    125 ttctgatttcagtacanataatagtggatctcaaccaaaacagaagtcagatactgtgct 184

Qy   2053 ttttccagcaaaggatctcaaggaaaaggaccttcattcaatatttactcatgattctgg 2112
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    185 ttttccagcaaaggatctcaaggaaaaggaccttcattcaatatttactcatgattctgg 244

Qy   2113 tctgataacaataaacagttcacaagagcacctaactgttcaggcaaaggctccattcca 2172
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    245 tctgataacaataaacagttcacaagagcacctaactgttcaggcaaaggctccattcca 304

Qy   2173 tactcctcct 2182
          ||||||||||
Db    305 tactcctcct 314


RESULT  14
AAF64832
ID   AAF64832 standard; cDNA; 397 BP.
XX
AC   AAF64832;
XX
DT   09-APR-2001  (first entry)
XX
DE   Novel human polynucleotide, SEQ ID NO: 588.
XX
KW   Human; cytostatic; gene therapy; colon cancer; prostate cancer;
KW   breast cancer; lung cancer; cancer detection; ss.
XX
OS   Homo sapiens.
XX
PN   WO200102568-A2.
XX
PD   11-JAN-2001.
XX
PF   30-JUN-2000; 2000WO-US18374.
XX
PR   02-JUL-1999;   99US-0142310.
PR   02-JUL-1999;   99US-0142311.
XX
PA   (CHIR ) CHIRON CORP.
PA   (HYSE-) HYSEQ INC.
XX
PI   Williams LT, Escobedo J, Innis MA, Garcia PD, Klinger J, Kassam A;
PI   Reinhard C, Randazzo F, Kennedy GC, Pot D, Lamson G, Drmanac R;
PI   Crkenjakov R, Drmanac S, Dickson M, Labat I, Leshkowitiz D;
PI   Kita D, Garcia V, Jones LW, Strache-Crain B;
XX
DR   WPI; 2001-091805/10.
XX
PT   Library of polynucleotides for diagnosing a cancerous state of a
PT   mammalian cell and detecting cancer, particularly of the colon or
PT   prostate, comprises 3351 human polynucleotide sequences -
XX
PS   Claim 9; Page 629; 1046pp; English.
XX
CC   The present sequence is one of 3351 sequences in a library of human
CC   polynucleotides. The library is used to detect differentially expressed
CC   genes correlated with a cancerous state of a mammalian cell and can
CC   detect colon, prostate, breast and lung cancer. The library can be used
CC   to produce probes for detection of mRNA and to produce additional copies
CC   of the polynucleotides. The probes can be used for chromosome mapping of
CC   the polynucleotide and for detection of transcription levels. Ribozymes
CC   or antisense oligonucleotides can be generated. The polynucleotides and
CC   their gene products are used as genetic or biochemical markers (e.g. in
CC   blood or tissues) that will detect the earliest changes along the
CC   carcinogenesis pathway and/or monitor the efficacy of therapies and
CC   preventive interventions. The polynucleotides, polypeptides and
CC   antibodies against them can be used in pharmaceutical compositions to
CC   treat the cancers and proliferative disorders such as neoplasia,
CC   dysplasia and hyperplasia.
XX
SQ   Sequence 397 BP; 123 A; 48 C; 70 G; 156 T; 0 other;


  Query Match             7.6%;  Score 211.4;  DB 22;  Length 397;
  Best Local Similarity   79.2%;  Pred. No. 4.8e-38;
  Matches  289;  Conservative    0;  Mismatches   71;  Indels    5;  Gaps    3;

Qy    951 aagctatcaaggaccatgattttattc-cttcaaatagtatattatcaaatgccttgtca 1009
          | |  |||||||||||||||||||||| ||||||||||||||||||||||||||||||||
Db      4 acgagatcaaggaccatgattttattctcttcaaatagtatattatcaaatgccttgtca 63

Qy   1010 tggggagtaaaaattcttcatattgatgacattagatactacattgaacaaaagaaaaaa 1069
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     64 tggggagtaaaaattcttcatattgatgacattagatactacattgaacaaaagaaaaaa 123

Qy   1070 gagttgtatttactcaagaaatcaagtacttcagtaagagatgggggcaaaagagttggt 1129
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    124 gagttgtatttactcaagaaatcaagtacttcagtaagagatgggggcaaaagagttggt 183

Qy   1130 agtggtgcacaaaaaacaagaacaggaagactcaaaaagccttttgtaaaggtggaagat 1189
          |||||||||||  ||  |  |||   ||||| | ||| ||||||||  | ||| |||||||
Db    184 agtggtgcacacaattcttgaa---gaagatttaaatagccttttttgatagggggaagat 240

Qy   1190 atgagccaactttataggccattttatcttcagctgaccaatatgccttttataaattat 1249
          ||| |||| |||||| |  |  ||| | |||       |  || |    || || |||||
Db    241 atgtgccatctttattgtgccattt-ttttctttatgtctttaaggtggttttatattat 299

Qy   1250 tctattcagaagccctgcagtccatttgatgtagacaagccatctagtatgcaaaagcaa 1309
          ||| |  |||| |||   |    ||||     | | |    || |  ||||  |||
Db    300 tctttgtagaatcccactatggtatttttataatatattgtatttttttatgggaaatttt 359

Qy   1310 actca 1314
          ||||
Db    360 tctca 364


RESULT  15
AAI16129
ID   AAI16129 standard; DNA; 468 BP.
XX
AC   AAI16129;
XX
DT   12-OCT-2001  (first entry)
XX
DE   Probe #6062 for gene expression analysis in human cervical cell sample.
XX
KW   Probe; human; microarray; gene expression; cervical epithelial cell;
KW   cervical cancer; ss.
XX
```

OS Homo sapiens.
XX
PN WO200157278-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US00670.
XX
PR 04-FEB-2000; 2000US-0180312.
PR 26-MAY-2000; 2000US-0207456.
PR 30-JUN-2000; 2000US-0608408.
PR 03-AUG-2000; 2000US-0632366.
PR 21-SEP-2000; 2000US-0234687.
PR 27-SEP-2000; 2000US-0236359.
PR 04-OCT-2000; 2000GB-0024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488901/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for
PT analyzing gene expression in human cervical epithelial cells -
XX
PS Claim 25; SEQ ID No 6062; 487pp; English.
XX
CC The present invention relates to human single exon nucleic acid probes
CC (SENP). The present sequence is one such probe. The SENPs are derived
CC from human HeLa cells. The SENPs can be used to produce a single exon
CC microarray, which can be used for measuring human gene expression in a
CC sample derived from human cervical epithelial cells. By measuring gene
CC expression, the probes are therefore useful in grading and/or staging
CC of diseases of the cervix, notably cervical cancer.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 468 BP; 146 A; 92 C; 92 G; 138 T; 0 other;

Query Match 6.6%; Score 184.2; DB 22; Length 468;
Best Local Similarity 98.4%; Pred. No. 6.5e-32;
Matches 186; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

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Qy    736 gcgagttgaagaatttctcagcaaagatatcagttatcttatttcaaataagaaggaagc 795
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Db    274 gcgagttgaagaatttctcagcaaagatatcagttatcttatttcaaataagaaggaagc 333

Qy    796 taaatttgcacaaaccttgggtcgaatttctcctgtaccaagtccagaatctgcatatac 855
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Qy    856 tgcagaaaccacttcacctcatcccagccatgatggaagttcatttaagtcaccagacac 915
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Db    394 tgcagaaaccacttcacctcatcccagccatgatggaagttcatttaagtcaccagacac 453

Qy    916 agtgtgttt 924
          |||  || |
Db    454 agtaagtct 462
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